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February 27, 2019

**VIA ELECTRONIC FILING**

The Honorable Jocelyn G. Boyd  
Chief Clerk/Administrator  
Public Service Commission of South Carolina  
101 Executive Center Drive  
Columbia, South Carolina 29210

**RE: Annual Review of Base Rates for Fuel Costs of South Carolina Electric  
& Gas Company  
Docket No. 2019-2-E**

Dear Ms. Boyd:

Enclosed for filing on behalf of South Carolina Electric & Gas Company ("SCE&G") in the above-captioned docket is the amended direct testimony and exhibits of Henry E. Delk, Jr. and J. Darrin Kahl. The amendments to the testimony are as follows:

- With respect to Henry E. Delk, Jr.'s testimony, the following change was made: On page 4, line 16, the number "24,168,742" was corrected to "24,165,462."
- With respect to J. Darrin Kahl's testimony, the following changes were made: On page 6, line 9, the number "62,500" was corrected to "61,500," and on page 7, lines 19-20, the sentence, which read "Historically, normal weather during this same time averages around 35 °F.", was revised to read "Historically, low temperatures during this same time average around 35 °F."

By copy of this letter, we are serving the parties of record with a copy of SCE&G's amended direct testimony and exhibits attach a certificate of service to that effect.

If you have any questions, please advise.

Very truly yours,

Matthew W. Gissendanner

MWG/kms  
Enclosures

The Honorable Jocelyn G. Boyd

February 27, 2019

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          (all via electronic mail only w/enclosures)  
      **Becky Dover, Esquire**  
      **Carri Grube-Lybarker, Esquire**  
          (both via electronic mail and U.S. First Class Mail w/enclosures)

BEFORE  
THE PUBLIC SERVICE COMMISSION OF  
SOUTH CAROLINA

DOCKET NO. 2019-2-E

IN RE:

Annual Review of Base Rates for  
Fuel Costs of South Carolina  
Electric & Gas Company

**CERTIFICATE  
OF SERVICE**

This is to certify that I have caused to be served this day one copy of South Carolina Electric & Gas Company's amended direct testimony and exhibits of Henry E. Delk, Jr. and J. Darrin Kahl to the persons named below at the addresses set forth and in the manner described:

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Karen M. Scruggs

Cayce, South Carolina

This 27th day of February 2019

**AMENDED DIRECT TESTIMONY OF**

**HENRY E. DELK, JR.**

**ON BEHALF OF**

**SOUTH CAROLINA ELECTRIC & GAS COMPANY**

**DOCKET NO. 2019-2-E**

**Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND POSITION WITH SOUTH CAROLINA ELECTRIC & GAS COMPANY ("SCE&G" OR "COMPANY").**

**A.** My name is Henry E. Delk, Jr., and my business address is 220 Operation Way, Cayce, South Carolina 29033. I am employed by SCE&G as General Manager, Fossil Hydro Operations.

**Q. DESCRIBE YOUR EDUCATIONAL BACKGROUND AND YOUR BUSINESS EXPERIENCE.**

**A.** I graduated from Clemson University in 1993 with a Bachelor of Science degree in Mechanical Engineering and earned a Master of Business Administration from the University of South Carolina in 2000. I began my career with Milliken & Company in 1993 working as a Process Improvement Engineer. After three years, I accepted a position with Clariant Corporation as a Project Engineer. I began my career with SCE&G in 1997 in the Rate Department as a Rate & Regulatory

1 Specialist. In 2000, I transferred to Electric Transmission and assumed a position  
2 within the System Control department as a System Controller. Within Electric  
3 Transmission, I served as Supervisor/Manager of Operations Planning from 2001 to  
4 2007 and Manager of System Control from 2007 to 2012. I transferred to the  
5 Electric Operations division in 2012 to 2013 working as Manager of Northern  
6 Division Transmission Operations and Local Manager of the Lexington and Chapin  
7 Crew Quarters. From 2013 to 2014, I served as Director of Power Marketing. I  
8 assumed the role of General Manager, Fossil Hydro Technical Services in June  
9 2014. In September 2017, I assumed my current position as General Manager,  
10 Fossil Hydro Operations.  
11

12 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

13 **A.** The purpose of my testimony is to review the operating performance of  
14 SCE&G's Fossil Hydro units and South Carolina Generating Company's  
15 ("GENCO") Williams Electric Generating Station ("Williams Station") during the  
16 period January 1, 2018, through December 31, 2018 ("Review Period").  
17

18 **Q. PLEASE GIVE A SHORT DESCRIPTION OF SCE&G'S FOSSIL AND**  
19 **HYDROELECTRIC FACILITIES.**

20 **A.** SCE&G currently operates four (4) coal-fired steam units (1,704 megawatts  
21 ("MW")), three (3) gas-fired steam units (345 MW), eleven (11) combined-cycle

1 gas turbine/steam generator units (gas/oil fired, 1,814 MW), sixteen (16) peaking  
2 turbines (339 MW), four (4) hydroelectric generating facilities (216 MW), and one  
3 (1) pumped storage facility (576 MW). The total net non-nuclear summer  
4 generating capability rating of these facilities is 4,994 MW. The ratings stated in  
5 this testimony are updated on an annual basis.

6  
7 **Q. DOES SCE&G OPERATE RENEWABLE GENERATORS?**

8 **A.** Yes. SCE&G also owns and operates a thin laminate solar generation system  
9 on ten acres of rooftop at Boeing's North Charleston production facility. At peak  
10 capacity, this system generates 2.6 MW (DC nameplate).

11  
12 **Q. HAVE THERE BEEN ANY CHANGES TO THE MAKEUP OF SCE&G'S**  
13 **FOSSIL HYDRO GENERATION FLEET?**

14 **A.** Yes. On May 9, 2018, SCE&G completed its acquisition of an  
15 approximately 540 MW rated combined cycle gas-fired generation facility and  
16 equipment located near Gaston, South Carolina, ("Columbia Energy Center") from  
17 Columbia Energy, LLC. The Commission approved the transfer of the Certificate  
18 of Environmental Compatibility and Public Convenience and Necessity for the  
19 Columbia Energy Center from Columbia Energy, LLC to SCE&G in Order No.  
20 2018-272 in Docket No. 2018-25-E.

1           SCE&G also sold to KapStone Charleston Kraft LLC ("KapStone") the  
2           biomass generator (85 MW) located at the KapStone facility in North Charleston,  
3           South Carolina upon expiration of the contract on December 31, 2018. KapStone  
4           is now its own primary supplier of electric energy at its North Charleston facility  
5           and has SCE&G to serve as a secondary backup supplier of such energy.  
6

7   **Q.   PLEASE DESCRIBE GENCO AND ITS RELATIONSHIP TO SCE&G.**

8   A.           GENCO owns Williams Station and was incorporated on October 1, 1984,  
9           as a SCANA subsidiary. GENCO sells to SCE&G the total capacity and entire  
10          output from the Williams Station under a Unit Power Sales Agreement approved by  
11          the Federal Energy Regulatory Commission. For purposes of this testimony, I  
12          include Williams Station when I refer to SCE&G's coal-fired steam plants.  
13

14   **Q.   HOW MUCH ELECTRICITY WAS GENERATED BY SCE&G IN THE**  
15   **REVIEW PERIOD?**

16   A.           In the Review Period, SCE&G generated 24,165,462 megawatt hours  
17          ("MWH") of energy. Of this energy, the coal-fired steam units generated  
18          approximately 35%, the combined-cycle units generated approximately 36%, the  
19          nuclear plant generated approximately 20%, the gas-fired steam units (Urquhart  
20          Unit No. 3 and McMeekin Unit Nos. 1 & 2) generated approximately 4%, the  
21          peaking gas turbines and hydro units generated approximately 4%, and the biomass



1 cogeneration facility and the solar generation facility together generated  
2 approximately 1%. By fuel, natural gas accounted for 41% of the total energy  
3 generated, coal accounted for 35%, nuclear accounted for 20%, hydropower  
4 accounted for 3%, and SCE&G-owned biomass and solar accounted for 1%.  
5 Exhibit No. \_\_\_\_ (HED-1) provides a graphic display of how the Company's  
6 generation met our customers' demand for energy during this Review Period by unit  
7 type and by fuel.

8  
9 **Q. PLEASE SUMMARIZE THE PERFORMANCE OF THE FOSSIL HYDRO**  
10 **UNITS.**

11 A. SCE&G's Fossil Hydro units operated efficiently and dependably during the  
12 Review Period. SCE&G's fossil units (including combined-cycle units) had an  
13 availability factor of 83.48%.

14 During the Review Period, SCE&G's fossil units (including combined-cycle  
15 units) had a forced outage factor of 0.51%. The "forced outage factor" is the  
16 percentage of the total hours that generating units are forced out of service (for  
17 various reasons) compared with the number of hours in the period.

1 **Q. PLEASE DISCUSS THE SIGNIFICANT PROJECTS UNDERTAKEN**  
2 **DURING SCE&G'S MAINTENANCE OUTAGES FOR THE REVIEW**  
3 **PERIOD.**

4 **A.** As part of the Company's ongoing maintenance program, SCE&G undertook  
5 a number of significant projects during its maintenance outages in this Review  
6 Period. A brief description of major work is as follows:

7 > **Williams Station** conducted a planned outage during Fall 2017. This outage  
8 was discussed in my testimony in last year's fuel proceeding. The primary  
9 work completed during this outage included: replacement of the main cooling  
10 tower, replacement of the rotary car dumper, installation of a redundant  
11 limestone ball mill, replacement of reheat pendant tubes in the boiler,  
12 replacement of burner tube panels in the boiler, inspection of the turbine, and  
13 major repairs to the high pressure/intermediate pressure turbine shell. This  
14 outage started on September 3, 2017, and the unit returned to service on  
15 January 19, 2018, approximately seven (7) weeks later than planned due to  
16 site evacuations during Hurricane Irma and a winter ice storm, additional  
17 work identified during the repairs to the high pressure/intermediate pressure  
18 turbine shell, certain work requiring schedule updates to reflect more time to  
19 complete than originally estimated by the vendor, and certain issues during  
20 start-ups of the unit in early January requiring further repairs.

- 1           ➤ **Urquhart Station** completed a planned outage of all units during Spring  
2           2018. The primary work completed during this outage included a major steam  
3           turbine overhaul of Unit No. 3 and inspections of associated steam turbine  
4           valves, condenser tube replacements on all three steam units, and motor  
5           control center replacements on Units No. 1 and 2. Other work performed  
6           during this outage included the cooling tower replacement on gas turbine No.  
7           4 and inspections to high energy piping on Units No. 1 and 3.
- 8           ➤ **Jasper Station** also conducted a planned outage during Spring 2018. The  
9           primary work completed during this outage included a hot gas path inspection  
10          on Unit No. 1 and inspections of steam turbine valves and bearings on Unit  
11          No. 4. In addition, heat recovery steam generator (HRSG) penetration seals  
12          were replaced and modifications were made to HRSG hangers. Condensate  
13          and circulating water pumps were replaced and inspections to high energy  
14          piping were completed.
- 15          ➤ **Cope Station** completed a planned outage during Fall 2018. The primary  
16          work included inspection of the generator field per GE Technical Information  
17          Letter 1292. In addition, a generator re-wedge was performed, various pumps  
18          and valves were rebuilt/refurbished, and natural gas ignitors/burners were  
19          installed in the auxiliary boiler. Scaffolding of the main boiler was built to  
20          replace burners as well as to conduct an inspection and make repairs to areas  
21          deemed necessary.

➤ **Columbia Energy Center** completed a planned outage during Fall 2018. The primary work completed during this outage included a major inspection of Units 1 and 2, replacement of the thrust bearing on Unit No. 2, inspection of the generator on Unit No. 3, high energy piping inspections, and modification to the HRSG low pressure superheat header.

➤ **Saluda Hydro Nos. 1 and 2** conducted a planned outage during Fall 2018 to install upgraded control systems on both units.

➤ **Urquhart No. 3** conducted a planned outage during Fall 2018 to remedy issues identified during the Spring 2018 outage discussed previously. The primary work during this outage included applying a balance shot to the rotor; however, upon inspection, visual damage to low pressure turbine blades was discovered. Further inspection revealed extensive damage to turbine blades and the diaphragm requiring disassembly of the unit for shipment to a shop for major repairs.

**Q. PLEASE DISCUSS ANY SIGNIFICANT FORCED OUTAGES FOR THE PERIOD UNDER REVIEW.**

**A.** SCE&G's Fossil Hydro Operations defines a significant forced outage as any forced outage in excess of seven (7) days. Fossil Hydro had no significant forced outages during the Review Period.

**Q. WHAT WAS SCE&G'S FOSSIL SYSTEM FORCED OUTAGE FACTOR FOR THE PERIOD UNDER REVIEW?**

**A.** For the Review Period, SCE&G's fossil units (including coal-fired and natural gas-fired steam units and combined-cycle units) experienced a system forced outage factor of 0.51%. SCE&G's forced outage factor of 1.53% for coal-fired units compared favorably to the North American Electric Reliability Council ("NERC") national five-year (2013-2017) average of 4.88% for forced outage factors on all coal-fired units. SCE&G's forced outage factor of 0.21% for its combined-cycle units was much lower than the NERC national five-year (2013-2017) average for combined-cycle units of 2.48%. SCE&G's gas-fired steam units forced outage factor of 0.15% for the Review Period was much better than the NERC national five-year (2013-2017) average of 5.13% for gas-fired steam units.

**Q. PLEASE DISCUSS THE AVAILABILITY OF SCE&G'S FOSSIL PLANTS DURING THE REVIEW PERIOD.**

**A.** Availability factor is a measure of the actual hours that the generation units are available (overall readiness to provide electricity) divided by the total hours in the Review Period. Availability is not affected by how the unit is dispatched or by the demand from the system when connected to the grid. However, it is impacted by the planned and unplanned shutdown hours. SCE&G's fossil plants (including coal-fired and gas-fired steam units as well as combined-cycle units) had an

1 availability factor of 83.48% during the Review Period. For comparison purposes,  
2 the NERC national five-year (2013-2017) average for availability from all coal-fired  
3 units was 84.04%, and SCE&G's availability for its coal-fired units for 2018 was  
4 85.84%. SCE&G's combined-cycle availability factor of 84.47% was a little lower  
5 than the NERC national five-year (2013-2017) average for combined-cycle units of  
6 87.89% primarily due to major outages at Jasper and Urquhart Stations in the Spring  
7 and a major outage at Columbia Energy Center in the Fall. SCE&G's gas-fired  
8 steam units' availability factor was 77.03% for the Review Period which was lower  
9 than the NERC national five-year (2013-2017) average of 82.34% for gas-fired  
10 steam units due to the major outage extension on Urquhart Unit No. 3 in the Spring  
11 and Fall.

12  
13 **Q. PLEASE EXPLAIN "HEAT RATE" AND DESCRIBE THE HEAT RATE OF**  
14 **THE FOSSIL UNITS DURING THE REVIEW PERIOD.**

15 **A.** Heat rate is a way to measure the thermal efficiency of a power plant. It is  
16 the number of British Thermal Units ("Btu") of fuel required to generate one (1)  
17 kilowatt-hour ("kWh") of electricity. Simply put, the lower the heat rate, the more  
18 efficient the plant.

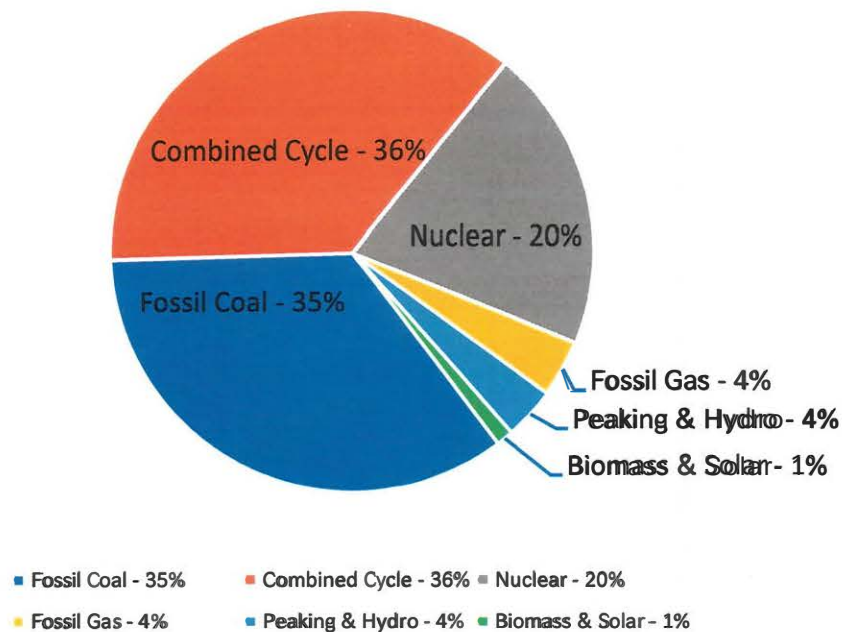
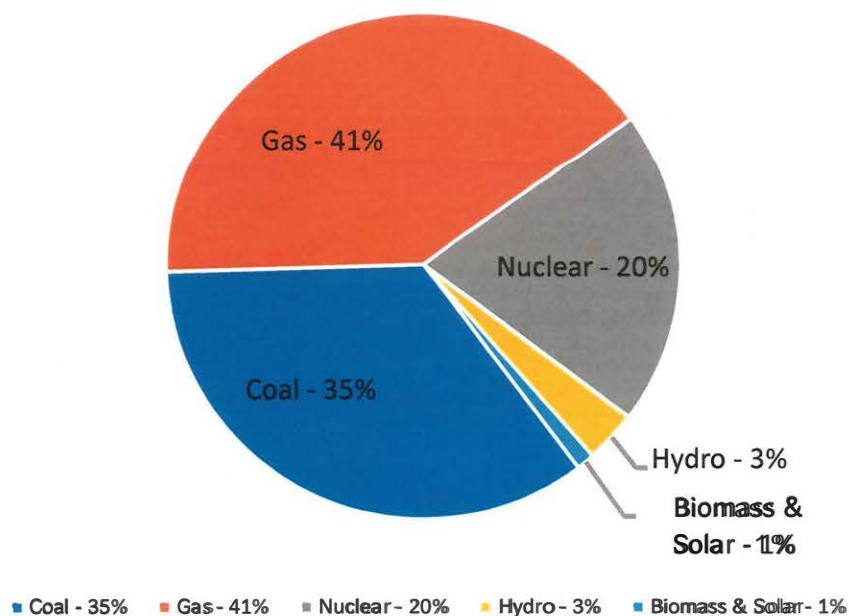
19 The coal-fired steam unit average system heat rate for the Review Period was  
20 10,045 Btu/kWh. Cope Station had the best heat rate on our system at 9,635  
21 Btu/kWh. For comparison purposes, the most recent data published by Power

1           Engineering magazine in June 2018 indicates that the national average for heat rate  
2           for 2017 for all coal-fired units is 10,476 Btu/kWh.

3  
4   **Q.    DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

5   **A.           Yes.**

Exhibit No. \_\_ (HED-1)

**2018 SCE&G-Owned Generation Mix by Unit Type****2018 SCE&G-Owned Generation Mix by Fuel**



**AMENDED DIRECT TESTIMONY OF**

**J. DARRIN KAHL**

**ON BEHALF OF**

**SOUTH CAROLINA ELECTRIC & GAS COMPANY**

**DOCKET NO. 2019-2-E**

**Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

A. My name is J. Darrin Kahl, and my business address is 1300 12th Street,  
Suite F, Cayce, South Carolina.

**Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT POSITION?**

A. I am employed by SCANA Services, Inc. ("SCANA Services") as Manager  
of Supply and Asset Management.

**Q. PLEASE DESCRIBE YOUR DUTIES RELATED TO NATURAL GAS  
PROCUREMENT FOR ELECTRIC GENERATION IN YOUR CURRENT  
POSITION.**

A. During the review period of January 1, 2018, through December 31, 2018  
("Review Period"), I was responsible for natural gas procurement for the generating  
facilities operated by South Carolina Electric & Gas Company ("SCE&G"). These  
responsibilities included procurement of gas supply and capacity, nominations, and  
scheduling.

1 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND**  
2 **WORK EXPERIENCE.**

3 A. I graduated from the University of South Carolina in 1991 with a Bachelor  
4 of Science degree in Accounting. Following graduation, I held various roles within  
5 the accounting areas of audit, information technology, and financial reporting with  
6 an electronic security services company. In 1997, I joined SCANA Energy  
7 Marketing, Inc. ("SEMI") as an Energy Services Coordinator performing a variety  
8 of job functions, including tariff analysis, gas supply procurement and scheduling.  
9 In 1999, I assumed the role of Transportation Coordinator which included intrastate  
10 and interstate pipeline scheduling, producer services, and gas supply procurement.  
11 In 2002, I accepted the position of Supervisor of Scheduling with SCANA Services  
12 where my responsibilities included supervising a team of employees who conducted  
13 nominations, scheduling, and balancing on interstate pipelines for all of the SCANA  
14 gas subsidiaries. From 2003 through 2007, I assumed the position of Manager of  
15 Operations & Gas Accounting, where I was responsible for the day to day operations  
16 of gas scheduling on interstate pipelines and gas accounting. Currently, I am the  
17 Manager of Supply and Asset Management with SCANA Services, where I manage  
18 a team of employees responsible for natural gas procurement, transportation,  
19 scheduling and balancing.

20  
21 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?**

22 A. Yes, I have testified before this Commission on several occasions.

1 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
2 **PROCEEDING?**

3 A. The purpose of my direct testimony is to provide information about the  
4 natural gas purchasing process for SCE&G generation and to discuss natural gas  
5 prices for the Review Period, and outlook for natural gas prices in the near term.  
6

7 **I. NATURAL GAS PURCHASING**

8 **Q. PLEASE DESCRIBE HOW YOUR DEPARTMENT MAKES NATURAL**  
9 **GAS PURCHASING DECISIONS.**

10 A. Natural gas purchases made by the Gas Supply Department ("Department")  
11 are driven by the needs of the electric generation group. My Department provides  
12 SCE&G's Economic Resource Commitment Group ("ERC") with current market  
13 information that they use in resource commitment modeling for the Company's  
14 electric generation plants. ERC requests natural gas price quotes and market  
15 information from my Department on a daily basis. ERC uses current natural gas  
16 prices as one input into its dispatch modeling to determine the most economical  
17 means of reliably meeting the electricity needs of customers.

18 Actual natural gas purchasing decisions are driven by the unit commitment  
19 decisions made by ERC. After ERC determines that natural gas is the economical  
20 choice for providing reliable power to our customers, my Department is directed to  
21 purchase natural gas supplies for delivery with a stated term and volume at the best  
22 available current market prices at that time.

1 **Q. PLEASE DESCRIBE YOUR NATURAL GAS CONTRACTS.**

2 A. We have industry standard contracts with more than 60 suppliers that have  
3 proven to be creditworthy and reliable. These contracts set forth many of the terms  
4 and conditions of delivery. Price and quantity, however, are determined at the time  
5 of purchase.

6 The most common prices quoted for daily natural gas deliveries are the day-  
7 ahead gas price. The Gas Daily Average or GDA, for example, is an average of  
8 these day-ahead prices, reported on a historical basis the next business day.

9 The day-ahead natural gas market, however, closes at mid-day of the day  
10 before the natural gas is delivered. Because some unit commitment decisions may  
11 not be made until the following morning, GDA prices are not available for all supply  
12 purchases for electric generation. In these situations, the natural gas we purchase  
13 for electric generation is made in the intraday market. In summary, natural gas  
14 purchases for electric generation are short-term in nature when compared to other  
15 fuel purchases due to the fungible nature of natural gas and the liquidity of the  
16 natural gas market.

17  
18 **Q. WHAT TOOLS DO YOU USE TO INFORM YOUR NATURAL GAS**  
19 **PURCHASING DECISIONS?**

20 A. The most important tools used to inform our purchasing decisions are my  
21 Department's collective experience in national natural gas markets, careful  
22 observation and evaluation of movements in market-based prices, and continual

1 surveys of our suppliers for pricing information. These tools are by far the most  
2 important and most accurate in helping to determine market-based prices for natural  
3 gas supplies being purchased on the "spot market."

4 Another tool we use to inform our purchasing decisions is the  
5 Intercontinental Exchange ("ICE"), which is a real time electronic trading board.  
6 The shortcoming of the ICE service as with other pricing services is that not all  
7 trades are reflected in these services. Nevertheless, ICE is one of the most widely  
8 used sources of pricing information and provides a reliable indication of current  
9 market prices.

10 My Department also uses the New York Mercantile Exchange ("NYMEX")  
11 pricing data as a guide to determine whether to purchase natural gas on a monthly  
12 or seasonal basis. NYMEX is a financial market which captures real-time trading  
13 data and information about the projected price of natural gas and other commodities  
14 for various times in the future.

15  
16 **Q. WHAT NATURAL GAS TRANSPORTATION CAPACITY DOES SCE&G**  
17 **HAVE FOR THE GENERATING FACILITIES OPERATED BY SCE&G?**

18 **A.** SCE&G has long-term capacity contracts with the following interstate  
19 pipelines for firm transportation service: 51,050 dekatherms ("Dt") per day on  
20 Southern Natural Gas Company ("SNG"), 220,000 Dt per day on Dominion Energy  
21 Carolina Gas Transmission of which 56,502 Dt per day are related to the acquisition  
22 of the Columbia Energy Center, and 40,000 Dt per day on Transcontinental Gas

1 Pipeline, LLC ("Transco"). SCE&G also has a Commission-approved contract with  
2 SEMI for firm natural gas supply up to 120,000 Dt per day which will expire in  
3 April 2019.

4  
5 **Q. HAS THE COMPANY SUBSCRIBED TO ANY ADDITIONAL**  
6 **INTERSTATE PIPELINE CAPACITY FOR NATURAL GAS FIRED**  
7 **GENERATION?**

8 **A.** Yes. In April 2019, the Company will commence service with Elba Express  
9 Company, LLC for 61,500 Dts per day. This capacity was acquired to replace, in  
10 part, the expiration of the SEMI supply contract. The remaining upstream capacity  
11 to supply the expiring SEMI supply agreement will be acquired through a permanent  
12 capacity release of 60,000 Dt per day on SNG at the pipeline's maximum recourse  
13 rate.

14 The Company has also entered into a Precedent Agreement with Transco for  
15 an additional 125,000 Dts per day of its Southeastern Trail Project ("SET"). The  
16 Company subscribed to this capacity to help meet the daily demands of the recent  
17 acquisition of the Columbia Energy Center. The anticipated in-service date for the  
18 SET capacity is the fourth quarter of 2020. SCE&G has also entered into an  
19 agreement subscribing to 62,500 Dt per day of capacity for electric generation on  
20 the Mountain Valley Pipeline project. This capacity will provide SCE&G access to  
21 the Marcellus natural gas basin which will feed into the SET capacity.

1           The Company entered into these agreements prior to the closing of the  
2           merger of SCANA Corporation and Dominion Energy, Inc. ("Dominion Energy").  
3           The Company continues to review its generation needs on an ongoing basis to  
4           determine whether it requires additional natural gas transportation capacity to serve  
5           natural gas fired generation facilities. Future contracts for additional natural gas  
6           transportation capacity will be subject to the requirements set forth in Commission  
7           Order 2018-804 and the Settlement Agreement among Dominion Energy, SCE&G,  
8           and Transco, dated October 24, 2018, in Docket No. 2017-370-E.

9  
10   **Q.   PLEASE DESCRIBE NATURAL GAS PRICES DURING THE CURRENT**  
11   **PERIOD UNDER REVIEW.**

12   **A.**Prices in the NYMEX natural gas commodity market began the Review  
13   Period at \$3.03 per Dt. An early cold January pushed the commodity spot prices  
14   above \$7.00 per Dt on its highest day, and the delivered market for Transco Zone 5  
15   traded at a high mark of \$150 per Dt. These high prices were driven by significant  
16   cold weather in the southeast including SCE&G's service territory. For example,  
17   Columbia's low temperatures for the first eight days of January were on average 16  
18   degrees Fahrenheit ("°F") below normal, while the system low during this same time  
19   period was 19 °F below normal. Historically, low temperatures during this same  
20   time average around 35 °F. Although the colder weather subsided for several days  
21   during January, much of the month experienced cold weather. These conditions

1 resulted in high prices in the spot market for Transco Zone 5 delivered prices as  
2 shown in Exhibit No. \_\_ (JDK-1).

3 Early February saw an abrupt end to extreme winter temperatures, allowing  
4 prices to rapidly fall to \$2.53 by mid-February, the low for the year. The remainder  
5 of the winter and summer saw prices trade in a range from the \$2.50s to mid \$3.30s  
6 as lower than average national storage levels made it difficult for the market to trade  
7 lower. Entering the winter season, the national storage level was at a 15-year low  
8 and 16% below the 5-year average for November 1. An early winter cold front  
9 coupled with these lower storage levels drove an increase in market prices, topping  
10 out at the year's high of approximately \$4.93 on November 14, 2018. Prices  
11 remained above \$4.00 until mid-December when a warm last half of the month  
12 allowed prices to retreat, finishing the year at \$2.94. Attached hereto as Exhibit No.  
13 \_\_ (JDK-2) is a graph of the NYMEX daily settle prices for 2018.

14 During the Review Period, SCE&G purchased approximately 76,000,000 Dt  
15 of natural gas for electric generation at a total cost of approximately \$234,000,000  
16 and at an approximate average price of \$3.09 per Dt.

17 The price forecast for the remainder of 2019 suggests natural gas prices are  
18 likely to average near \$3.00 per Dt as the winter period comes to a close. However,  
19 short-term price volatility can result from changes in either supply or demand. The  
20 fundamental factors of such changes may include, but are not limited to, weather,  
21 increases in customer demand, changes in supplies from shale production, changes  
22 in storage inventory levels, and/or constraints in pipeline capacity. Energy analysts



1 continue to forecast gas prices in the \$3.00 per Dt to \$4.00 per Dt range over the  
2 next 3 to 5 years.

3  
4 **Q. WHAT REQUEST DOES SCE&G MAKE OF THE COMMISSION IN THIS**  
5 **PROCEEDING?**

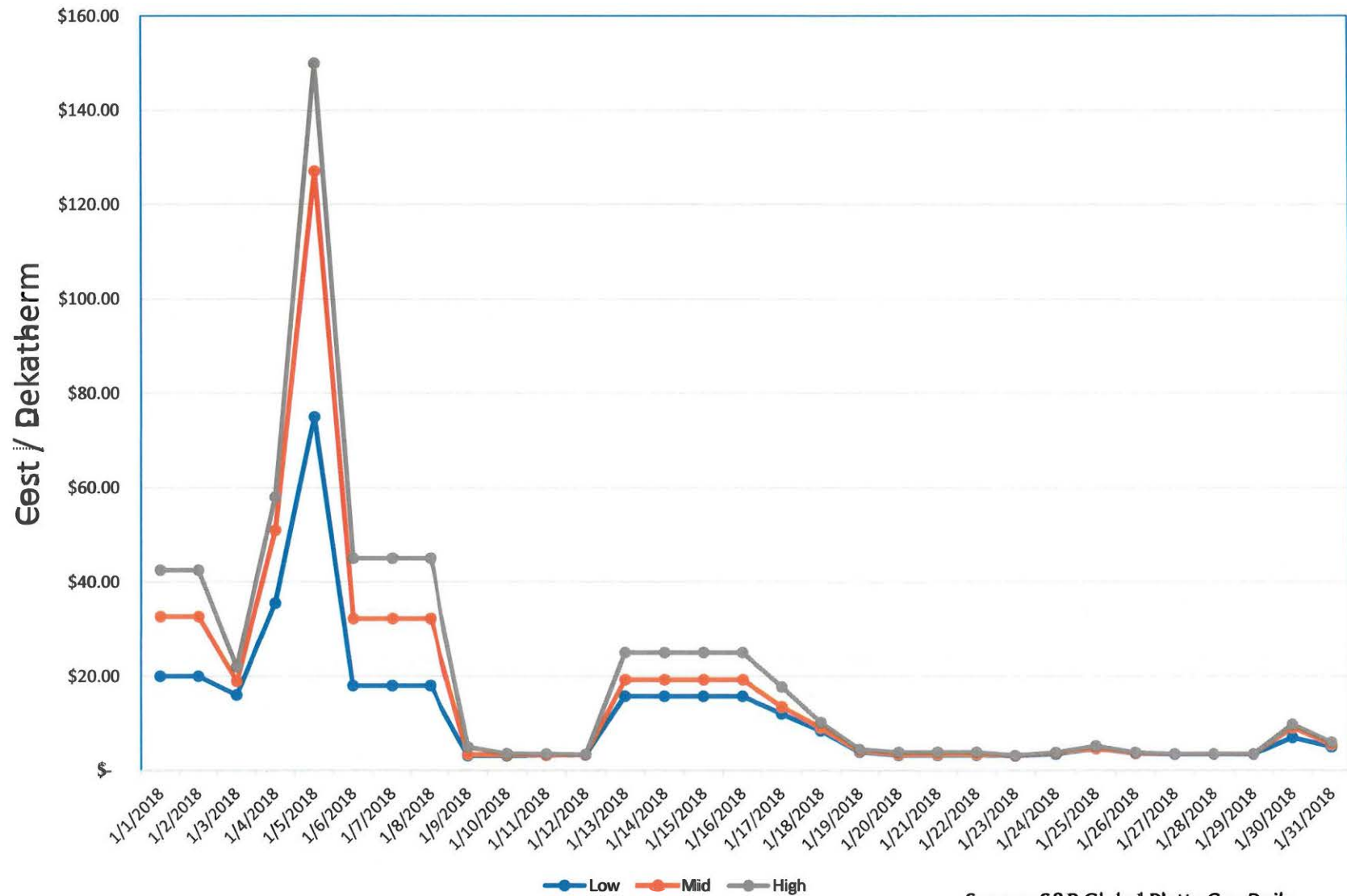
6 **A.** During the Review Period, the Department made diligent and prudent efforts  
7 to obtain reasonable market-based prices for the reliable supply of natural gas for  
8 electric generation and to procure the necessary capacity for the delivery of that  
9 supply. Therefore, on behalf of SCE&G, I respectfully request that the Commission  
10 find that the Company's fuel purchasing practices were reasonable and prudent for  
11 the Review Period.

12  
13 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

14 **A. Yes.**

Exhibit No. \_\_ (JDK-1)

## Transco Zone 5 Delivered, South



Source: S&amp;P Global Platts Gas Daily

## 2018 NYMEX Daily Settle Prices

